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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/619,416	07/19/2000	Lynn Van Erden	SYMXP002	2643
26541	7590	07/16/2004	EXAMINER	
RITTER, LANG & KAPLAN 12930 SARATOGA AE. SUITE D1 SARATOGA, CA 95070			QUAN, ELIZABETH S	
			ART UNIT	PAPER NUMBER
			1743	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/619,416	Applicant(s) ERDEN ET AL.	
	Examiner Elizabeth Quan	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-26,31-50 and 54-56 is/are pending in the application.
- 4a) Of the above claim(s) 31-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-26,42-50 and 54-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on 5/10/2004. These drawings are not acceptable since they contain new matter. Applicant points to page 15, lines 18-20 of the instant specification for support: The flow restriction device 92 may also include check valves which allow flow into the reaction wells 30 but restrict flow from the reaction wells to the pressure chamber 26. As shown, the instant specification does not describe the check valves in any particular detail for it to be represented as a circle embedded in an angle as shown in new drawing fig. 14. The new figure seems contrary to what one would expect of a check valve since gas is flowing from above the check valve. It is unclear how the vertex of the angle would allow flow of material into the vial but disallow flow of material from the vial. It seems more appropriate that the angle with its circular structure be inverted, such that fluid material would push against the circle to force material through the vertex of the angle.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 17, 18, 21, 23-25, 42-46, 49, 54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 18 is rendered indefinite since it appears that the vent holes are just another name for fluid passageways. It is unclear how vent holes are structurally different from the passageways. If the vent holes are intended to be a different element other than the fluid

passageways, then there is a 112, first paragraph issue in that neither the instant specification nor drawings disclose both flow passageways and vent holes.

5. Claims 25 and 49 are rendered indefinite since their respective independent claims recite a direct communication path between the reaction wells and pressure chamber and the placement of vials in the wells no longer provides a direct communication path between the reaction wells and pressure chamber since the vials are sitting in the wells.

6. Regarding claims 17, 42, 44, 54, it is unclear what structural relationships or elements that would allow the flow passageways of the flow restriction device to provide a direct fluid communication path between one of the plurality of reaction wells and the pressure chamber while reducing cross-talk between the plurality of reaction wells as recited in claims 17, 42, 44, and the flow passageways of the flow restriction device providing the only fluid communication path between the plurality of reaction wells and the pressure chamber as recited in claim 54.

Claim Rejections - 35 USC § 102

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 17, 18, 21, 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,011,779 to Maimon.

Maimon discloses an apparatus for use in parallel reaction of materials (fig. 6). The apparatus comprises a base (206), cover (201), inlet port (204), and flow restriction device (200,202,203) (fig. 6). The base has a plurality of reaction wells formed in an upper surface of the base and extending partially therethrough in which each reaction well has a closed lower end defined by the base and an open upper end for receiving components for the reaction (fig. 6). A

plurality of vials (205) is inserted into the reaction wells (fig. 6). The cover sealingly engages with the base to form a housing enclosed the plurality of reaction wells and defining a common pressure chamber in communication with the plurality of reaction wells (fig. 6). The inlet port is in communication with the pressure chamber for supplying pressurized fluid to the chamber to pressurize the plurality reaction wells (col. 6, lines 29-35). The flow restriction device is positioned adjacent to the open ends of the reaction wells and comprises a plurality of flow passageways configured to provide a direct fluid communication path between one of the plurality of reaction wells and the pressure chamber while reducing cross-talk between the plurality of wells (fig. 6). The flow restriction device comprises holes through which tubes pass (fig. 6). The holes with tubes align with the reaction wells (fig. 6). The flow restriction device comprises a sheet with holes through which fittings pass thereby characterizing the flow restriction device as a porous sheet (fig. 13). It appears the flow restriction device is relatively rigid since it maintains its structure even under pressure. Furthermore, the term rigid is a relative term, and everything has a certain degree of rigidity. The flow restriction device is removably attached to the base member through the hinge (209) (fig. 6). The housing is configured to sustain a pressure substantially above atmospheric pressure.

9. Claims 17-19, 21, 23, 24, 42, 43, 45-47, 54 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,190,666 to Bisconte.

Bisconte discloses an apparatus for use in parallel reaction of materials (abstract; figs. 1-9; col. 1-3). The apparatus comprises a base (20), cover (1), flow restriction device (13a), and inlet port (28) (fig. 2).

The base has a plurality of reaction wells (19) formed in an upper surface of the base and extending partially therethrough in which each reaction well has a closed lower end defined by the base and an open upper end for receiving components for the reaction (fig. 2). The cover is configured for sealing engagement with the base to form a housing enclosing the plurality of reaction wells and defining a common pressure chamber in communication with the plurality of reaction wells (fig. 2). An inlet port (28) is in communication with the pressure chamber for supplying pressurized fluid to the chamber to pressurize the plurality of reaction wells (fig. 2; col. 5, lines 46-57; col. 7, line 60-col. 8, line 16). The material and structure of the pressure chamber is such that the chamber is operable to sustain an operating pressure of 1 bar to 7 bars, which is equivalent to 14.5 per square inch to 101.5 per square inch, and possibly more (col. 8, lines 11-16).

The flow restriction device is positioned adjacent to the open ends of the reaction wells to provide communication between the reaction wells and the pressure chamber (fig. 2). The flow restriction device comprises a plurality of flow passageways formed therein and aligned with the plurality of reaction wells (fig. 2). Each of the plurality of flow passageways is configured to provide a direct fluid communication path between one of the plurality of reaction wells and the pressure chamber while reducing cross-talk between the plurality of reaction wells since there is no obstacle in the straight path from each of the passageways to the respective reaction well and the passageway generally restricts flow into the respective reaction well, such that the flow restriction device reduces cross-talk in comparison to having no flow restriction device (fig. 2). The plurality of flow passageways provides the only fluid communication path between the plurality of reaction wells and pressure chamber since fluid must flow through each of the

passageways to the respective reaction vessel (fig. 2). Each of the flow passageways has a diameter substantially smaller than a diameter of the aligned reaction well (fig. 2). The flow restriction device is removably attached to the base member with fastening means (23,24) (fig. 2; col. 5, lines 36-56). It appears the flow restriction device is relatively rigid since it maintains its structure even under pressure. Furthermore, the term rigid is a relative term, and everything has a certain degree of rigidity. The flow restriction device is considered a porous sheet, since it is broad stretch or surface something or a portion of something that is thin in comparison to its length and breadth with holes since <http://www.m-w.com> defines porous as possessing or full of pores, permeable to fluids, or capable of being penetrated, and sheet as a broad stretch or surface of something or a portion of something that is thin in comparison to its length and breadth.

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 25, 26, 49, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,190,666 to Bisconte in view of U.S. Patent No. 6,485,692 to Freitag et al. and/or U.S. Patent No. 5,544,683 to Guhl.

Bisconte discloses all limitations except a plurality of vials inserted into the plurality of reaction wells for receiving reaction components in which each of the plurality of vials has a closed lower end and an open upper end for receiving components for the reaction and/or a plurality of springs disposed at the bottom of the reaction wells for biasing the vials upward against the flow restriction device. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Bisconte to provide

a plurality of vials inserted into the plurality of reaction wells for receiving reaction components in which each of the plurality of vials has a closed lower end and an open upper end for receiving components for the reaction to allow removal of the vials for further in-depth characterization; selection of vessels made of material appropriate for a given set of reactants, products, and reaction conditions; disposal of vessel if damaged instead of disposal of the reactor block for reduced costs; and lower costs and compatibility by designing the reactor block to accommodate commercially available vessels and/or provide a plurality of springs disposed at the bottom of the reaction wells for biasing the vials upward against the flow restriction device to allow consistent sealing of the vessels and account for variances in the height of the reactor vessels as taught by Freitag et al. (col. 6, line 22-col. 7, line 28). Guhl discloses a vessel inserted into a wells and a spring disposed at the bottom the well to agitate the contents of the vessels. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide each of the wells of Bisconte with a vessel and spring disposed at the bottom of the well to accommodate agitation of the contents of vessels (as required or desired in a reaction) in parallel for high-throughput. Furthermore, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art (*St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8).

12. Claims 20, 48, 55, 56 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,190,666 to Bisconte in view of U.S. Patent No. 6,410,332 to Desrosiers et al. and/or U.S. Patent No. 5,846,396 to Zanzucchi et al.

Bisconte discloses all limitations except a flow restriction device comprising a plurality of check valves aligned with the reaction wells. However, it would have been obvious to one

having ordinary skill in the art at the time the invention was made to modify the apparatus of Bisconte to provide a flow restriction device comprising a plurality of check valves aligned with the reaction wells to prevent fluid from leaving the wells as taught by Desrosiers et al. (col. 11, lines 55-62) and/or Zanzucchi et al. (col. Col. 31, lines 11-23).

13. Claims 22, 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,190,666 to Bisconte in view of U.S. Patent No. 4,927,604 to Mathus et al. and/or U.S. Patent No. 4,493,815 to Fernwood et al. and/or U.S. Patent No. 6,376,256 to Dunnington et al.

Bisconte discloses all limitations except the flow restriction device being made of an elastomer. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Bisconte to provide a flow restriction device being made of an elastomer since elastomers create good seal and can be reused as taught by Mathus et al. (col. Col. 4, line 55-col. 6, line 6) and/or since elastomers are inert material capable of forming a seal as taught by Fernwood et al. (col. 4, lines 4-15) and/or since elastomers are chemically resistance and prevents liquids and vapors from each well entering adjacent wells as taught by Dunnington et al. (col. 9, lines 43-67).

Response to Arguments

14. Applicant's arguments filed 5/10/2004 have been fully considered but they are not persuasive.

15. Applicant asserts that claims 17, 42, and 54 are directed to an apparatus for use in parallel reaction or materials. Applicant states that the device show in fig. 6 of Maimon patent is simply a device for use in punching samples from a sheet and inserting them into individual vials. Applicant also states that the apparatus is not configured to sustain any significant pressure.

16. Examiner states that the limitation of “for use in parallel reaction or materials” in the preamble is a recitation of intended use and does not provide any structure that is required by the body of the claim. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPQ 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In this case the apparatus of Maimon is capable of parallel reaction or material. For instance, components may be added to the tubes to generate products, such that the membranes impregnated with detecting substances may be punched into the tubes to determine the contents/identity of the products. Examiner argues that Maimon includes all the structural limitations of the claims, such that sustaining a small pressure, such as a pressure substantially above atmospheric pressure, is inherent to the apparatus. Applicant has not defined “substantially” could be 15 psig, which is barely 1 atm on top of the standard pressure of 1 atm for a total of 2 atm, since page 12 of the instant specification that the vessel may be designed to operate at pressure of 15 psig. Furthermore, Maimon discloses that an air blow nozzle is required to blow air from an air tube (211) to urge the filters into the tube, such that the interior of the apparatus would be subjected to a total pressure above atmospheric pressure. Additionally, the use of a hot air dryer may be used to dry absorbents and minimize the ring on the paper, such that the apparatus would be subjected to a total pressure above atmospheric pressure. Additionally, sufficient pressure is required to address all wells to force the filters into

the tube. Since Applicant has not provided a working definition of "substantially", it may be interpreted that "substantially above atmospheric pressure" may include any pressure above atmospheric pressure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Quan whose telephone number is (571) 272-1261. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elizabeth Quan
Examiner
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